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## Lung Cancer

**TOPIC:** Lung Cancer

**TYPE:** Medical Student/Resident Case Reports

### PERSISTENT COUGH POST-COVID-19 INFECTION: LONG COVID SYNDROME? THINK AGAIN

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**INTRODUCTION:** Patients with COVID-19 infection, who undergo a variable acute symptomatic phase of the disease, have been coming forward with a diverse range of continued disease manifestations: most common of these are cough, fever and fatigue (1). Clinical practice guidelines recommend a thorough evaluation of unexplained subacute (3-8 weeks) or chronic (>8 weeks) cough (2). Should cough lingering post-COVID-19 infection be managed differently? We present a case of persistent cough post-COVID-19 infection found to be an extensive metastatic lung adenocarcinoma.

**CASE PRESENTATION:** Mrs. K is a 34-year-old female, who presented with a persistent cough after being diagnosed with COVID-19 infection. Over the span of 3 months, she was seen at an urgent care facility, pulmonology clinic and the emergency department twice for the same symptom. Patient was given cough suppressors, albuterol, fluticasone and later fluticasone/salmeterol inhalers, multiple short courses of steroids and various antibiotic courses for post-COVID-19 reactive airways and possible pneumonia but her cough persisted. Eventually the patient developed hemoptysis for which she was admitted for further work up. Vitals were stable, O<sub>2</sub> saturation 96% on room air and lungs clear to auscultation. WBC count was 12.2k. Work-up for bacterial and fungal infections was negative. CXR revealed a right patchy perihilar and infrahilar opacity (Figure 1). CT scan of the chest showed extensive multifocal airspace opacities in the right middle and lower lobe and a prominent subcarinal lymph node compressing the left mainstem bronchus (Figure 2). Bronchoscopy revealed large mass partially obstructing the mainstem bronchus (Left > Right) (Figure 3). A stent was placed in the Left mainstem bronchus and endobronchial biopsies of the tumor and fine needle aspiration of the subcarinal and hilar lymph nodes were obtained. Pathology report indicated lung adenocarcinoma and further imaging revealed diffuse metastasis to the peritoneum, pelvis, spine and abdominal lymph nodes.

**DISCUSSION:** Long COVID-19 syndrome is a complex illness that describes the residual effects of an acute COVID-19 infection (3). As with many common medical illnesses, like fibromyalgia, schizophrenia, IBS, which are diagnosed by exclusion, long COVID-19 syndrome would also best fit this category. With a major portion of the population having had COVID-19, it is easy to close a case by relating it to COVID-19: especially if the symptoms are otherwise unexplained. Physicians, especially in the outpatient sector, need to have a high threshold for relating an unexplained symptom to COVID-19 as it can be detrimental to their case.

**CONCLUSIONS:** While the medical community is catching up with the implications of the novel coronavirus, it is important to remain unbiased in patients presenting with an unexplained symptom and history of COVID-19 at least until the novel disease is fully understood.

**REFERENCE #1:** Greenhalgh T, Knight M, A'Court C, et al. Management of post-acute covid-19 in primary care. *BMJ* 2020;370:m3026.

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**REFERENCE #3:** Taribagil P, Creer D, Tahir H'. Long COVID' syndrome. *BMJ Case Reports CP* 2021;14:e241485.

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